

operational system. A lower second region 7 displays information relating to a second vehicle operational system. Each region has a landscape aspect ratio.

[0049] Alongside each button 4 the display shows to the driver a label which corresponds to the function of the button 4. The function of the button 4 will vary depending on which system is displayed in each region of the display.

[0050] As illustrated in FIG. 2 the display may be configured in an alternative mode of operation with the upper and lower regions combined to form a single region 8 displaying information on one vehicle operational system. This allows more complex systems, such as a navigational map, to be displayed.

[0051] In a second embodiment, illustrated in FIG. 3 of the accompanying drawings, the discrete buttons 4 have been replaced by two vertically extending touch sensitive display regions 9,10. For ease of manufacture, these regions 9,10 together with the central display portion form part of a single touch-sensitive display panel having an industry standard landscape aspect ratio of 3:4.

[0052] A moulded surround 11 is overlaid with the touch sensitive strips and the main display portion to identify regions corresponding to separate buttons 13. The moulded overlay 11 provides location feedback to the driver, allowing the driver readily to tell that they are pressing a button area.

[0053] As with the first embodiment, the central display can be divided into two regions by a horizontal split. However, it is now possible to display the labels for each button on the face of the buttons themselves.

[0054] In an alternative to providing a single display, each touch sensitive button may comprise an individual liquid crystal display screen. FIG. 4 of the accompanying drawings is a plan view of one example of a touch sensitive button that can be employed in the display system.

[0055] The button 20 comprises a portion of liquid crystal display 21 which permits a label (not shown) representing the function of the button 20 to be presented. The display portion 21 defines a backplane in front of which is provided a transparent touch sensitive screen 22 supported relative to the display 21 by a hinge 23 along one edge and by a spring 24 along the opposing edge. When the driver touches the screen it can be moved back towards the back plane against the force of the spring 24. This provides the user with tactile feedback.

[0056] An alternative embodiment of a touch sensitive button is illustrated in plan view in FIG. 5 of the accompanying drawings. In this arrangement, the button 30 comprises a display panel 31 and a touch sensitive screen above the panel 32. A guide assembly is provided which controls movement of the display panel. The guide assembly comprises two parallel arms 33,33' which pass through respective guide slots 34,34' in a supporting back plane 35 for the display panel 31. Springs 36,36' between the backplane and the display provides force resistance to the movement of the button.

[0057] In an alternative (not shown) a centrally located spring may be used.

[0058] The guide arms ensure that the touch sensitive face is constrained to move in a direction parallel to the plane of

the display, and may be configured as solenoids which then provide the locking means for the button when the button is inactive.

1. An in-vehicle display configured to display information relating to at least a first vehicle operational system and a second vehicle operational system, said display system comprising a display panel defining a main display portion and further comprising at least one user input device, whereby said display operates in at least one mode of operation wherein said main display portion is split horizontally into an upper and a lower region, information relating to said first operational system being displayed in said upper region and information relating to said second system being displayed in said lower region.

2. An in-vehicle display according to claim 1 wherein the upper and lower regions are different sizes.

3. An in-vehicle display system according to claim 1 wherein said main display portion has at least one vertical side and wherein a plurality of input devices are provided, said input devices being arranged along at least one vertical side of said main display portion.

4. An in-vehicle display system according to claim 1 wherein said main display portion has a vertical dimension and a horizontal dimension and wherein said main display portion is rectangular in outline and has a portrait format such that said vertical dimension of said display is greater than said horizontal dimension.

5. An in-vehicle display system according to claim 1 wherein at least one of said input devices is horizontally aligned with said upper region and at least one of said input devices is horizontally aligned with said lower region of said main display portion.

6. An in-vehicle display system according to claim 1 wherein said display panel shows a label associated with at least one of said input devices, said label indicating to the driver a function of said input device at any instant in time.

7. An in-vehicle display system according to claim 6 wherein said label comprises at least one of text information, a symbol, a plurality of symbols and a combination of text information and at least one symbol.

8. An in-vehicle display system according to claim 7 wherein at least one of said input devices comprises a discrete button, a label being presented in either of said display regions the upper and lower display region of said display panel alongside said button.

9. An in-vehicle display system according to claim 7 wherein at least one of said input devices comprises a touch-sensitive button provided by an additional region of said display panel.

10. An in-vehicle display system according to claim 9 wherein a touch sensitive display is provided having two vertically extending touch sensitive regions along the sides of said main display portion, said central display portion defining said upper region and lower regions of the display.

11. An in-vehicle display system according to claim 9 wherein a label is provided on said touch sensitive region within an outline of a button, said function associated with said label being accessed when a driver touches said display within said button outline.

12. An in-vehicle display system according to claim 9 wherein a portion of said display defining a touch sensitive button is displaceable against a resistance which provides tactile feedback to a driver.